

### REMARKS

The specification has been amended to correct informalities and typographical errors. No new matter has been added as a result of the amendments to the specification.

Claims 12 and 13 have been cancelled. Claim 1 has been amended to particularly point out that which the Applicants claim as their invention, directly in response to the Examiner's remarks supporting rejection of the claims under 35 U.S.C. § 112, by deleting "film-like" and inserting "porous" therefor. Support for this amendment is found in original claim 7 and in the originally filed specification at page 4, first full paragraph. Claim 1 has also been amended to incorporate the subject matter of allowable claim 12. More particularly, claim 1 now includes ethyl cellulose, a surfactant, and tertiary-octyl phenol on the indicator pad. Claims 1, 3-5, 7, and 10-11 have also been amended to correct informalities and to provide clarity to claim elements. No new matter has been added as a result of the claim amendments.

New claim 14 is similar to cancelled claim 13, and new claim 15 is similar to original claim 1, except that new claims 14 and 15 clarify the structure of the indicator pad. Both new claims 14 and 15 clarify that the porous hydrophobic barrier membrane has a front side in contact with the sample and an opposite side protected from contact with the water. Support for new claims 14 and 15 is found in claim 1 as originally filed and in the specification at pages 7-8. New claims 16 and 17 depend from new claim 15. Support for new claims 16 and 17 is found in original claim 1 and original claim 5, respectively.

### 35 U.S.C. §112 Rejection

Claims 1-11 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention. Claim 1 has been deemed indefinite with respect to the term "film-like." Claim 1 has been amended to delete the term "film-like" and to insert the word "porous," to claim a "porous hydrophobic barrier membrane." Applicants believe that this claim amendment is fully responsive to the Examiner's rejection. Withdrawal of the rejection is respectfully requested.

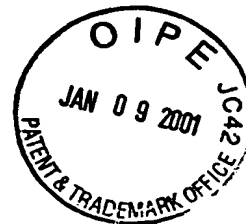
### 35 U.S.C. §103 Rejection

Claims 1-11 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,201,548 (Tamaoku et al.). The Examiner has stated that Tamaoku et al. discloses an apparatus and method for detecting and determining volatile substances such as ammonia. The Examiner stated that although Tamaoku et al. do not specifically teach that the alkaline agents adjust the pH to at least 10, the reference does teach that the alkaline agents are used as vaporizing agents and the detection sensitivity of the volatile substance is increased with the vaporizing agents. The Examiner concluded that it would be obvious to the skilled artisan that in order for the alkaline agent to serve as a vaporizing agent and to produce gas, the vaporizing agent would have to increase the pH of the sample to a level sufficient to result in the formation of gas.

Applicants have amended claim 1 to incorporate the subject matter of allowable claim 12. More particularly, claim 1 has been amended to include ethyl cellulose, a surfactant, and tertiary octyl phenol impregnated on the indicator pad. As the Examiner has

indicated, use of ethyl cellulose, a surfactant, and tertiary octyl phenol is not taught or suggested by the prior art of record. Thus, Applicants respectfully request withdrawal of this rejection as it pertains to claim 1 and dependent claims 2-11.

Claim 13 has been cancelled. New claim 14 is similar to claim 13, except that new claim 14 clarifies that the porous hydrophobic barrier membrane has a front side in contact with the sample and an opposite side protected from contact with the water, wherein the barrier membrane itself is coated with the pH chromogenic mixture. Thus, a single membrane contacts the sample allowing the volatile gas to be separated and provides indicator that is protected from contact with the highly alkaline water (see page 7, first full paragraph). New claim 15 (with dependent claims 16-17) similarly clarifies this structure. As discussed on pages 7 and 9 of the specification, while both sides of this single membrane may be coated with the indicator, only the opposite side is read, as only this opposite side is positioned to avoid interference from the highly alkaline water. Tamaoku et al. teach the use of two membranes, one for separating the volatile substance and a second film-like membrane for carrying the indicator. Tamaoku et al. do not teach or suggest the use of a single membrane for separating the ammonia and providing indicator that is protected from the alkaline conditions of the sample. Applicants respectfully submit that new claims 14-17 are allowable over Tamaoku et al.



CONCLUSION

The claims are believed to be in condition for allowance. Applicants respectfully request the allowance of the claims and passage of the application to issuance.

Respectfully submitted,

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